Using SBES Longitudinal Data to Impact Real-Time Operations & Messaging:

A Long-Term Vision for the Weather Enterprise

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Develop an operational center that could analyze longitudinal SBES data and provide **real-time societal insights to guide IDSS messaging** to partners and publics.

Hurricane Survey

Using SBES Longitudinal Data to Impact Real-Time Operations and Messaging
Translation R&D Opportunities

Recommendation from Demuth: *A mechanism could be developed to analyze social observations in near real-time to identify critical misperceptions and/or lack of awareness about TC risks to impact messaging.*

Proposed Center for Real-Time Societal Insights (CRTSI)?

Staff social scientists could analyze real-time social science data and deliver insights to operations to identify critical misperceptions and guide real-time IDSS and messaging to address any identified public and/or partner misperceptions.

- **What physical science components would be needed to sustain this methodology in operations?**
- **How could it functionally be connected to meteorological observational data?**
- **How might the Weather Enterprise work together to make this vision become a reality?**

Meteorological vs. Social Science Data Analog When a Real-World Hurricane Is Threatening the U.S. — A Cost Comparison

SBES Longitudinal Survey
Data Collection Costs

- Laura and Marco Survey (2020) = $77K
- Henri Survey (2021) = $71K
- Ian Survey (2022) = **$95K**
  - Higher costs because they recruited more demographically diverse groups.

Hurricane Hunter
Data Collection Costs for Ian

- Staffing ~$6K/hour, so 8-hour flight = $48K
- Dropsondes ~$500 each, 20 per flight = $10K
- 14 flight missions into Ian (Losurdo 2022) = **$812K**
- Plus cost of airplane and fuel

Analysis courtesy of Demuth et al. (2023)